

WHAT IS CLAIMED IS:

1. A digital receiver comprising:
 - a tuner for converting a selected channel to a baseband channel signal;
 - an adjustable low pass filtering arrangement for filtering said baseband signal;
 - a first measuring arrangement for measuring a first value as a first function of a signal level of at least one first baseband signal component of said baseband signal whose frequency is adjacent an edge of said baseband channel and for measuring a second value as a second function of a signal level of at least one second baseband signal component of said baseband signal whose frequency is further from said edge of said baseband channel than a frequency of said at least one first baseband signal component; and
 - a controller for adjusting a passband of said low pass filtering arrangement such that said first and second values have a predetermined relationship.
2. A receiver as claimed in claim 1, in which said filtering arrangement is an analog filtering arrangement.
3. A receiver as claimed in claim 1, comprising an analog-digital conversion arrangement between said filtering arrangement and said first measuring arrangement.
4. A receiver as claimed in claim 1, in which said tuner is a single conversion zero intermediate frequency tuner.
5. A receiver as claimed in claim 1, in which said controller is arranged initially to adjust said filtering arrangement to have a smaller passband than a bandwidth of said baseband channel.
6. A receiver as claimed in claim 5, in which said controller is arranged to increment said passband of said filtering arrangement until said predetermined relationship exists.

7. A receiver as claimed in claim 1, comprising a demodulator including said first measuring arrangement.
8. A receiver as claimed in claim 1, in which said first measuring arrangement is arranged to perform a Fourier transform.
9. A receiver as claimed in claim 8, in which said Fourier transform is a discrete Fourier transform.
10. A receiver as claimed in claim 8, in which said Fourier transform is a fast Fourier transform.
11. A receiver as claimed in claim 1, in which said selected channel is orthogonal frequency division multiplexed.
12. A receiver as claimed in claim 11, in which said first value is measured as an average of levels of a first plurality of carriers whose frequencies are adjacent said edge of said baseband channel.
13. A receiver as claimed in claim 12, in which said carriers include at least one pilot carrier and said average is a weighted average.
14. A receiver as claimed in claim 12, in which said average is formed over a plurality of symbols.
15. A receiver as claimed in claim 14, in which said symbols are consecutive symbols.
16. A receiver as claimed in claim 12, in which said second value is measured as an average of levels of a second plurality of carriers.

17. A receiver as claimed in claim 16, in which said second plurality of carriers comprises all carriers.
18. A receiver as claimed in claim 16, in which said second plurality of carriers comprises all carriers except those of said first plurality.
19. A receiver as claimed in claim 16, in which said average is formed over a plurality of symbols.
20. A receiver as claimed in claim 19, in which said symbols are consecutive symbols.
21. A receiver as claimed in claim 1, in which said predetermined relationship is that said first and second levels are substantially equal to each other.
22. A receiver as claimed in claim 1, in which said baseband channel signal comprises in-phase and quadrature components.
23. A receiver as claimed in claim 22, in which said filtering arrangement comprises first and second adjustable low pass filters for said in-phase and quadrature components, respectively.
24. A receiver as claimed in claim 23, comprising a second measuring arrangement for measuring levels of said in-phase and quadrature components after filtering by said first and second filters, said controller being arranged to adjust at least one of said first and second filters so that said in-phase and quadrature components after filtering have substantially a same level.
25. A receiver as claimed in claim 24, comprising:
an analog-digital conversion arrangement disposed between said filtering arrangement and said first measuring arrangement and having an output; and

an automatic gain control arrangement responsive to said output of said analog-digital conversion arrangement for providing substantially constant average input levels to said analog-digital conversion arrangement.

26. A receiver as claimed in claim 25, comprising a gain and phase compensating arrangement for compensating in-phase and quadrature components from said analog-digital conversion arrangement.

27. A receiver as claimed in claim 26, comprising first and second digital low pass filters for filtering said in-phase and quadrature components, respectively.

28. A receiver as claimed in claim 27, in which said compensating arrangement is responsive to the components filtered by the first and second low pass digital filters.

29. A receiver as claimed in claim 27, in which said second measuring arrangement is arranged to measure levels of said components before filtering by said first and second low pass digital filters and said controller is arranged to reduce a passband of one of said first and second low pass filters corresponding to one of said components of larger level.

30. A receiver as claimed in claim 27, in which said second measuring arrangement is arranged to measure levels of said components after filtering by said first and second low pass digital filters and said controller is arranged to reduce a passband of the one of said first and second low pass filters corresponding to one of said components of smaller level.